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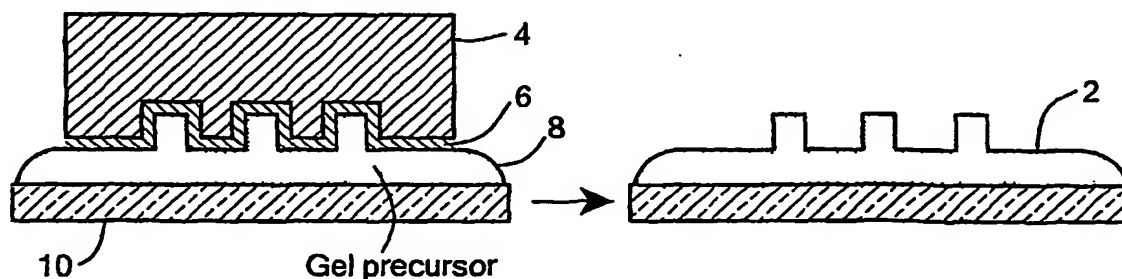
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**Declarations under Rule 4.17:**

— as to applicant's entitlement to apply for and be granted  
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(54) Title: THREE-DIMENSIONAL GELS THAT HAVE MICROSCALE FEATURES



(57) Abstract: The present invention provides three-dimensional hydrogel structures patterned by a treated micropattern mold. The treated mold is capable of transferring the inverse of its micropattern to a hydrogel by contact during formation or polymerization of the structure from a precursor. The treated micropattern mold surface allows the mold to be separated from the hydrogel without collapsing the structure or irreparably damaging its micropattern. The transferred micropattern may yield individual features and/or interconnected channels in the hydrogel. The invention also provides a hydrogel network fabricated by interfacing at least two hydrogels in which one or more of the hydrogels may be a micropatterned structure. Micropatterned hydrogel structures can also be specifically aligned to interconnect their patterns. Structures or networks of the invention comprise hydrogels that can adhere together by chemically bonding and/or mechanically entangling.



- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,

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